Amendment to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. - 8. (canceled)

9. (currently amended) A digital signal receiver apparatus ~~connected to~~ ~~external digital signal transmitter apparatuses by circuit of a digital signal bus to~~ ~~receive a digital signal, wherein said digital signal receiver apparatus comprises an~~ ~~interface circuit for requesting authentication at a predetermined timing and then~~ ~~performing the authentication to said external digital signal transmitter apparatuses~~ ~~by converting an instruction from a control circuit to a transmission packet in a~~ ~~packet processing circuit via an asynchronous transmission processing circuit and~~ ~~transmitting said transmission packet to said digital signal bus via a digital signal bus~~ ~~input/output circuit by a bus control circuit.~~comprising:

a digital signal bus input/output circuit which connects to a digital signal bus and transmits or receives a digital signal to or from external digital signal transmitter apparatuses connected to said digital signal bus;

a controller which generates an instruction to said external digital signal transmitter apparatuses and executes an instruction from said external digital signal transmitter apparatuses;

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packets processing circuit which converts said instruction from said controller, to transmission packets, and converts received packets from said external digital signal transmitter apparatuses to an instruction to said controller; and

a bus control circuit which transmits said transmission packets to said digital signal bus and receives said received packets from said digital signal bus via said digital signal bus input/output circuit;

wherein said controller requests an authentication at a predetermined timing by generating an instruction for authentication request and performs the authentication to said external digital signal transmitter apparatuses by exchanging said instruction with said transmission packets and received packets.

10. (currently amended) A digital signal receiver apparatus according to claim 9,

wherein said ~~interface circuit~~ controller requests authentication when said digital signal receiver apparatus is turned on, and then performs the authentication to said external digital signal transmitter apparatuses, ~~when said digital signal receiver apparatus is turned on~~.

11. (currently amended) A digital signal receiver apparatus according to claim 9,

wherein said ~~interface circuit~~ controller requests authentication when said external digital signal transmitter apparatuses are turned on, and then performs the

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authentication to said external digital signal transmitter apparatuses, ~~when said external digital signal transmitter apparatuses are turned on~~.

12. (currently amended) A digital signal receiver apparatus according to claim 9,

wherein said ~~interface circuit~~ controller requests authentication <u>when said digital signal receiver apparatus is connected to said digital signal bus,</u> and then performs the authentication to said external digital signal transmitter apparatuses, ~~when said digital signal receiver apparatus is connected to said digital signal bus~~.

13. (currently amended) A digital signal receiver apparatus according to claim 9,

wherein said ~~interface circuit~~ controller requests authentication <u>when said external digital signal transmitter apparatuses are connected to said digital signal bus,</u> and then performs the authentication to said external digital signal transmitter apparatuses, ~~when said external digital signal transmitter apparatuses are connected to said digital signal bus~~.

14. (currently amended) A digital signal receiver apparatus according to claim 9, further ~~comprising~~ comprising:

at least one input ~~terminals~~ terminal including an input terminal from said digital signal ~~bus~~ bus; and

a switching circuit for selecting said input ~~terminals~~terminal,

wherein said ~~interface circuit~~controller requests authentication <u>when said input terminal connected to said digital signal bus is selected by said switching circuit,</u> and then performs the authentication to said external digital signal transmitter apparatuses~~, when said input terminal connected to said digital signal bus is selected by said switching circuit~~.

15. (currently amended) A digital signal receiver apparatus according to claim 9,

wherein said ~~interface circuit retrieves said~~ <u>controller searches external</u> digital signal ~~bus and requests authentication and then performs the authentication to said external digital signal~~transmitter apparatuses connected to said digital signal bus<u>, requests authentication when said controller finds external digital signal transmitter apparatuses, and then performs the authentication to found external digital signal transmitter apparatuses</u>.

16. (currently amended) A digital signal receiver apparatus according to claim 9,

wherein said ~~interface circuit~~<u>controller</u> requests authentication <u>when said controller finds external digital signal transmitter apparatuses which are transmitting a digital video signal and/or a digital audio signal,</u> and then performs the

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authentication to said external digital signal transmitter apparatuses ~~transmitting a digital video signal and/or a digital audio signal~~.

17. (currently amended) A digital signal receiver apparatus according to claim 9,

wherein said ~~interface circuit~~ controller requests authentication <u>when said controller finds external digital signal transmitter apparatuses which are transmitting a digital video signal and/or a digital audio signal that cannot be copied freely,</u> and then performs the authentication to said external digital signal transmitter apparatuses ~~transmitting a digital video signal and/or a digital audio signal, when said digital video signal and/or digital audio signal cannot be copied freely~~.

18. (currently amended) A digital signal receiver apparatus according to claim 9,

wherein said ~~interface circuit~~ controller requests authentication <u>when said controller finds external digital signal transmitter apparatuses which were previously registered,</u> and then performs the authentication to said external digital signal transmitter apparatuses ~~which were previously registered~~.

19. (currently amended) A digital signal receiver apparatus according to claim 9,

wherein said ~~interface circuit~~ controller requests authentication <u>when said controller finds external digital signal transmitter apparatuses which said digital signal receiver apparatus received a digital video signal and/or a digital audio signal from in the past,</u> and then performs the authentication to said external digital signal transmitter apparatuses ~~which received a digital video signal and/or a digital audio signal in the past~~.

20. (new) A digital signal processing method using a digital signal receiver apparatus, comprising the steps of:

when said digital signal receiver apparatus is turned on,

converting an instruction from a controller to transmission packets and converting received packets to an instruction to said controller in a packets processing circuit;

transmitting said transmission packets from the packets processing circuit to said digital signal bus and receiving said received packets from said digital signal bus to said packets processing circuit via a digital signal bus input/output circuit by a bus control circuit;

requesting authentication by said transmission packets from said digital signal receiver, to said external digital signal transmitter apparatuses connected to the digital signal receiver apparatus; and

performing the authentication to said external signal transmitter apparatuses by said transmission packets and received packets.

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21. (new) A digital signal processing method using a digital signal receiver apparatus, comprising the steps of:

when said digital signal receiver apparatus is connected to one of external signal transmitter apparatuses,

converting an instruction from a controller, to transmission packets and converting received packets to an instruction to said controller in a packets processing circuit;

transmitting said transmission packets from the packets processing circuit to said digital signal bus and receiving said received packets from said digital signal bus to said packets processing circuit via a digital signal bus input/output circuit by a bus control circuit;

requesting authentication by said transmission packets from said digital signal receiver to said external digital signal transmitter apparatuses connected to the digital signal receiver apparatus; and

performing the authentication to said external signal transmitter apparatuses by said transmission packets and received packets.

22. (new) A digital signal processing method using a digital signal receiver apparatus which has at least one input terminal including an input terminal from said digital signal bus and a switching circuit for selecting said input terminal, comprising the steps of:

when said input terminal connected to said digital signal bus is selected by said switching circuit,

converting an instruction from a controller, to transmission packets and converting received packets to an instruction to said controller in a packets processing circuit;

transmitting said transmission packets from the packets processing circuit to said digital signal bus and receiving said received packets from said digital signal bus to said packets processing circuit via a digital signal bus input/output circuit by a bus control circuit;

requesting authentication by said transmission packets from said digital signal receiver to external digital signal transmitter apparatuses connected to the digital signal receiver apparatus; and

performing the authentication to said external signal transmitter apparatuses by said transmission packets and received packets.

23. (new) A digital signal processing method using a digital signal receiver apparatus which has a controller, comprising the steps of:

when said controller searches for external digital signal transmitter apparatuses connected to said digital signal bus and then finds the external digital signal transmitter apparatuses,

converting an instruction from a controller, to transmission packets and converting received packets to an instruction to said controller in a packets processing circuit;

transmitting said transmission packets from the packets processing circuit to said digital signal bus and receiving said received packets from said digital signal bus to said packets processing circuit via a digital signal bus input/output circuit by a bus control circuit;

requesting authentication by said transmission packets from said digital signal receiver to said external digital signal transmitter apparatuses connected to the digital signal receiver; and

performing the authentication to said external signal transmitter apparatuses by said transmission packets and received packets.

24.   (new) A digital signal processing method using a digital signal receiver apparatus which has a controller, comprising the steps of:

when said controller finds external digital signal transmitter apparatuses which are transmitting a digital video signal and/or a digital audio signal,

converting an instruction from a controller, to transmission packets and converting received packets to an instruction to said controller in a packets processing circuit;

transmitting said transmission packets from the packets processing circuit to said digital signal bus receiving said received packets from said digital signal bus to

said packets processing circuit via a digital signal bus input/output circuit by a bus control circuit;

requesting authentication by said transmission packets from said digital signal receiver to said external digital signal transmitter apparatuses connected the digital signal receiver; and

performing the authentication to said external signal transmitter apparatuses by said transmission packets and received packets.

25. (new) A digital signal processing method using a digital signal receiver apparatus which has a controller, comprising the steps of:

when said controller finds external digital signal transmitter apparatuses which are transmitting a digital video signal and/or a digital audio signal that cannot be copied freely,

converting an instruction from a controller, to transmission packets and converting received packets to an instruction to said controller in a packets processing circuit;

transmitting said transmission packets from the packets processing circuit to said digital signal bus and receiving said received packets from said digital signal bus to said packets processing circuit via a digital signal bus input/output circuit by a bus control circuit;

requesting authentication by said transmission packets from said digital signal receiver to said external digital signal transmitter apparatuses connected to the digital signal receiver; and

performing the authentication to said external signal transmitter apparatuses by said transmission packets and received packets.

26. (new) A digital signal processing method using a digital signal receiver apparatus which has a controller, comprising the steps of:

when said controller finds external digital signal transmitter apparatuses which were previously registered,

converting an instruction from a controller, to transmission packets and converting received packets to an instruction to said controller in a packets processing circuit;

transmitting said transmission packets from the packets processing circuit to said digital signal bus and receiving said received packets from said digital signal bus to said packets processing circuit via a digital signal bus input/output circuit by a bus control circuit;

requesting authentication by said transmission packets from said digital signal receiver to said external digital signal transmitter apparatuses connected to the digital signal receiver; and

performing the authentication to said external signal transmitter apparatuses by said transmission packets and received packets.

27. (new) A digital signal processing method using a digital signal receiver apparatus which has a controller, comprising the steps of:

when said controller finds external digital signal transmitter apparatuses which said digital signal receiver apparatus received a digital video signal and/or a digital audio signal from in the past,

converting an instruction from a controller, to transmission packets and converting the received packets to an instruction to said controller in a packets processing circuit;

transmitting said transmission packets from the packets processing circuit to said digital signal bus and receiving said received packets from said digital signal bus to said packets processing circuit via a digital signal bus input/output circuit by a bus control circuit;

requesting authentication by said transmission packets from said digital signal receiver to said external digital signal transmitter apparatuses connected to the digital signal receiver; and

performing the authentication to said external signal transmitter apparatuses by said transmission packets and received packets.

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